

FURTHER CONTRIBUTIONS TO THE HAWAIIAN AVIFAUNA.

BY LEONHARD STEJNEGER.

Mr. Valdemar Knudsen has again favored the National Museum with an important collection of Hawaiian birds, consisting exclusively of water-birds, all of particular interest. The collection contains a species new to science, besides several additions to the Hawaiian fauna.

As in the foregoing collections received from the same source, most of the specimens are from the island of Kauai, but, in addition, the present one contains several examples from the neighboring Niihau, a small island situated 13 miles southwest of Kauai.

In the following paper all the measurements are in millimeters, and the nomenclature is that of the A. O. U. code.

The native Hawaiian names are given on Mr. Knudsen's authority.

† *Puffinus knudseni*, sp. nov.

Knudsen's Shearwater.

Uau kaue.

Diagnosis.—Tail nearly half as long as the wing, graduated for the length of the tarsus; nasal tubes short, about one-fifth the length of the chord of culmen, raised above the level of the bill, inflated and obliquely cut anteriorly; nostrils roundish and wholly visible from above; nasal septum broad; color above sooty grayish, scapulars and interscapulars with paler more brownish margins; head, especially forehead, suffused with ashy, rump more blackish; ear-coverts like upper parts; lores and cheeks more ashy, gradually fading into the white of the under parts; flanks, crissum, and under tail-coverts sooty like the back; lining of wing white, axillaries gray; bill (dried) horny reddish gray, tube, culmen, and nails blackish; feet very pale horny yellowish (probably yellowish flesh color in fresh bird), somewhat browner on the outer side.

Dimensions of type specimen.—Wing, 287^{mm}; tail-feathers, 138^{mm}; chord of exposed culmen, 37^{mm}; tarsus, 46^{mm}; middle toe, with claw, 54^{mm}; graduation of tail, 49^{mm}.

Habitat.—Hawaiian Islands.

Type.—U. S. Nat. Mus., No. 113445; Kauai, Hawaiian Islands; Valdemar Knudsen, coll.

Knudsen's Shearwater belongs to the subgeneric group usually called *Thiellus* "GLOGER,"* which is characterized by the long and strongly

* Gloger, in 1827 (Froriep's Notizen, XVI, p. 279), proposed the name *Thyellus* (not *Thyellus*) as a substitute for the barbarous *Puffinus*. This name can not be restricted to the Long-tailed Shearwaters, as none of these species were known in 1827. As the group seems to be without a name, I would propose *Thyellodroma* (θύλλοδρομα = gale, πομάς = running) with *Puffinus sphenurus* for a type.

graduated tail. It is in reality closely allied to *P. sphenurus*, and consequently very distinct from any Shearwater hitherto known to occur in the Eastern Pacific. The discovery of the present species in the Hawaiian Archipelago, therefore, is one of particular interest. With no specimens of *P. sphenurus* for direct comparison, it is difficult to state the structural differences between the two species, especially since the size and proportions seem to be nearly the same, though *P. knudseni* has apparently somewhat shorter toes than *P. sphenurus*.

I have but little to add to the above diagnosis, except that the rami- ges are white at the base of the inner webs, the white gradually increasing inwards, so that on the proximal secondaries it occupies the basal half of the inner web.

In general coloration the new species bears great resemblance to *P. gavia* (FORST.) and *P. creatopus* (COUES), but besides being easily distinguished from both by its long tail and the shape of the nasal tubes, it differs from *P. gavia* in being much larger and in having gray axillaries, while its white lining of the wing and the absence of gray mottling on the throat and sides of neck distinguish it from *P. creatopus*.*

Mr. Knudsen writes me in regard to the present species, which, according to his label, is called "Uau kane" by the natives, that it was formerly found plentiful every summer at the top of the mountains as high up as 5,000 feet, where they had their nests in long burrows, but that in the last ten years they have become rare, as the foreign rats kill them in their nests.

4. *Anous melanogenys* GRAY.

Black-cheeked Noddy.

Noio.

1846.—*Anous melanogenys* GRAY, Gen. B., III, pl. clxxxii.

1854.—? *Anous tenuirostris* LICHTENSTEIN, Nomencl. Av. Mus. Berol., p. 97 (see TEMM.).

Mr. Knudsen sends four specimens of this addition to the Hawaiian fauna, all four being from the island of Niuhau. Mr. Dole (Haw. Alm., 1879, p. 57) only enumerates *A. stolidus* (LINN.) as occurring in the Hawaiian Islands, but the two species are very similar and may easily be confounded. On the other hand, the ranges of the two species are such as to make it probable that both may occur in the same archipelago.

The chief differences between the two species are as follows:

A. melanogenys is a smaller bird with the bill much slenderer and straighter, its height at base being 7 to 7.5^{mm} against 10^{mm} in *A. stolidus*; in the former the whole top of the head is distinctly whitish, while in the latter the forehead only is whitish. In the Southern Pacific there is a species similar to *A. melanogenys*, viz. *A. leucocapillus* GOULD, but this has the white of the top of the head abruptly defined behind, and not fading gradually into the dark ashy on the upper neck. Another

* Since the above was placed in the printer's hand Mr. Salvin (*Ibis*, 1888, p. 353) has described a *Puffinus cuneatus*, which, in some respects, agrees closely with our bird. His description differs, however, in several important points, making it probable that we have to do with two different species.

allied species, *A. tenuirostris* (TEMM.), from the Indian Ocean, is characterized by the lores being whitish, not black, as in our species. *A. melanogenys* is often confounded with the latter in the museums, and it is probable that the *A. tenuirostris* mentioned by Lichtenstein as being in the Berlin Museum from the Sandwich Islands (Nomencl. Av. Mus. Zool. Berol., p. 97) belong to the former.

The measurements of the Hawaiian specimens are as follows:

U. S. Nat. Mus. No.	Collector.	Sex and age.	Locality.	Date.	Wing.	Tail feathers.	Exposed culmen.	Height of bill at base.	Tarsus.	Middle toe with claw.
113455	Knudsen..	♂ ad.	Niihau, Hawaiian Islands.	.....	219	118	41	7.5	20	31
113456	.....do.....	♂ ad.	.....do.....	.....	233	126	41	7.5	20	31
113457	.....do.....	♀ ad.	.....do.....	.....	218	117	.....	7.0	20	30
113458	.....do.....	♀ ad.	.....do.....	.....	215	119	42	7.5	20	31

Mr. Knudsen observes that "the Noio live on the rocks about the coast and are not often seen by foreigners."

† *Fulica alai* PEALE.

Hawaiian Coot.

Alai keokeo.

1826.—*Fulica atra* BLOXHAM, Voy. Blonde, p. 251 (*nec* LINN.).

1848.—*Fulica alai* PEALE, Zool., U. S. Exp. Exp., Birds (p. 224, pl. lxiii, fig. 2).—HARTLACH, Wieg. Arch. Naturg., 1852, p. 137.—*Id.*, Journ. f. Orn., 1854, p. 170.—CASSIN, U. S. Exp. Exp., Orn., p. 306, pl. xxxvi (1858).—*Id.*, Proc. Acad. Philada., 1862, p. 322.—GRAY, Cat. B. Trop. Isl. Pacif., p. 54 (1859).—PELZELN, Verh. Zool. Bot. Ges. Wien, 1873, p. —; Extr., p. 7.—STREETS, U. S. Nat. Mus., Bulletin 7, p. 21 (1877).—SCLATER, P. Z. S., 1878, p. 351.—*Id.*, Rep. Voy. Challenger, Zool., II, pt. VIII, p. 99 (1881).—FINCH, Ibis, 1880, pp. 78-79.—WALLACE, Isl. Life, p. 296 (1881).—STEJNER, Proc. U. S. Nat. Mus., x, 1887, p. 80.

1869.—*Fulica alac* DOLE, Proc. Boston Soc. N. H., xii, p. 302; Extr., p. 9.—*Id.*, Hawaiian Alm., 1879, p. 54.

The two specimens sent corroborate the statement already made (Proc. U. S. Nat. Mus., x, 1887, p. 80) that this species, which is abundant on the southern islands, likewise occurs in Kanaï.

Measurements.

U. S. Nat. Mus. No.	Collector.	Sex and age.	Locality.	Date.	Wing.	Tail-feathers.	Culmen including frontal shield.	Bill from basal apex.	Tarsus.	Middle toe with claw.
113453	Knudsen...	♂ ad.	Kauai, Hawaiian Islands	.....	172	47	53	29	55	86
113454	.....do.....	♀ ad.	.....do.....	.....	168	45	49	29	52	81

† *Arenaria interpres* (LINN.).

Turnstone.

Akekeke.

The native name here given is the same as that previously given for the Sanderling (*Calidris arenaria*, Proc. U. S. Nat. Mus., x, 1887, p. 82), but the two birds should not be confounded, and "Akeke Kakiowai" may be the proper name for the last mentioned species.

The two specimens sent appear to be young birds in winter plumage. They were collected on the island of Niihau.

Mr. Dole has already recorded this species from Kauai under the name of *Strepsilas interpres* (Hawaiian Almanac, 1879, p. 51).

Measurements.

U. S. Nat. Mus. No.	Collector.	Sex and age.	Locality.	Date.	Wing.	Tail feathers.	Exposed culmen.	Tarsus.	Middle toe with claw.
113465	Knudsen.....	♂ jun.	Niihau, Hawaiian Islands	.....	148	63	23	25	27
113466	.....do.....	♀ jun.	.....do.....	.....	140	61	20	25	26

† *Himantopus knudseni* STEJN.

(Proc. U. S. Nat. Mus., x, 1887, p. 81.)

Two specimens from Niihau confirm the validity of this species. The peculiar coloration of the tail alluded to in the original description is also found in these, though less pronounced in No. 113463. The additional specimens, however, present another very strongly marked character which I did not mention in describing the type specimen, because most of the feathers in question were wanting, viz, that the longest upper tail-coverts have the inner webs entirely black, and that the down surrounding the uropygial gland are blackish. In some of the specimens of *H. mexicanus* the upper tail-coverts are more or less suffused with light gray, but I have found nothing like the broad median black stripe covering the base of the tail in *H. knudseni*.

The type specimen having a greenish black back is undoubtedly a male, while the two Niihau birds appear to be females, having the back brownish.

The appended table of dimensions corroborates the deduction previously made as to the relative proportions of the two species. Their wings and toes are of the same length, but *H. knudseni* has longer bill, tarsus, and tail.

Measurements.

U. S. Nat. Mus. No.	Collector.	Sex and age.	Locality.	Date.	Wing.	Tail-feathers.	Exposed culmen.	Tarsus.	Middle toe with claw.
110024	Knudsen	(♂) ad.	Kauai, Hawaiian Islands.	.....	232	87	75	121	47
113463	do	(♀) ad.	Niihau, Hawaiian Islands.	.....	227	81	80	117	46
113464	do	(♀) ad.	do	.....	221	80	74	113	45

* Type.

† *Numenius femoralis* PEALE.

Bristle-thighed Curlew.

Kioea.

(Proc. U. S. Nat. Mus., x, 1887, p. 83.)

Four additional specimens from Niihau show that this bird, originally added to the Hawaiian avifauna by Mr. Knudsen, was by no means an accidental straggler to the islands. In his letter to me he remarks, however, that the "Kioea" is a rare bird there, though almost always to be found in the localities affected by it, but he does not believe it to nest in the islands.

The bristly elongation of the shafts of thigh-feathers are well developed in all four specimens.

I may add that all four specimens are molting their inner primaries.

Measurements.

U. S. Nat. Mus. No.	Collector.	Sex and age.	Locality.	Date.	Wing.	Tail-feathers.	Exposed culmen.	Tarsus.	Middle toe with claw.
41953	Knudsen	ad.	Kauai, Hawaiian Islands	.....	246	92	93	56	45
113459	do	♂ ad.	Niihau, Hawaiian Islands.	.....	226	96	86	56	44
113460	do	♂ ad.	do	.....	240	97	90	59	44
113461	do	♀ ad.	do	.....	227	95	84	57	42
113462	do	♀ ad.	do	.....	234	95	89	56	.....

† *Dafila acuta* (LINN.).

Pintail.

Koloa mapu.

This is another addition to the Hawaiian fauna. Like the following species, it is only a winter visitor to the islands, going north in spring to breed.

The specimen sent is a fine male, measuring as follows :

U. S. Nat. Mus. No.	Collector.	Sex and age.	Locality.	Date.	Wing.	Tail-feathers.	Exposed culmen.	Tarsus.	Middle toe with claw.
113451	Knudsen	♂ ad.	Kauai, Hawaiian Islands ...	.....	270	112	52	43	57

+ *Spatula clypeata* (LINX.).

Shoveller.

Koloa moha.

This Duck, which has already been recorded by Mr. Dole and several visiting naturalists as occurring in the islands during winter, seems to be comparatively common.

Mr. Knudsen's specimen is a male in winter plumage, apparently a bird of the year.

Measurements.

U. S. Nat. Mus. No.	Collector.	Sex and age.	Locality.	Date.	Wing.	Tail-feathers.	Exposed culmen.	Tarsus.	Middle toe with claw.
113452	Knudsen	(♂).	Kauai, Hawaiian Islands ..	.....	243	90	61	38	55

+ *Anas wyvilliana* SCLATER.

Hawaiian Duck.

Koloa maoli.

1852.—*Anas boschas*? HARTLAUB, Wieg. Arch. Naturg., 1852, p. 137 (from spec. in Mus. Berol. ex Oahu).—GRAY, Cat. B. Trop. Isl. Pacif., p. 54 (1859).

1854.—*Anas boschas* var. HARTLAUB, Journ. f. Orn., 1854, p. 170.

1856.—*Anas superciliosa a. sandwichensis*, BONAPARTE, Compt. Rend., XLIII, 1856, p. 649 (*nom nud.*).

1859.—*Anas superciliosa* var. GRAY, Cat. B. Trop. Isl. Pacif., p. 54.

1862.—*Anas boschas* CASSIN, Proc. Acad. Philada., 1862, p. 322.

1869.—*Anas superciliosa* DOLE, Proc. Boston Soc. N. H., XII (p. 305); Extr., p. 12 (*nee Gmel.*).—*Id.*, Haw. Almanac, 1879, p. 55.

1878.—*Anas wyvilliana* SCLATER, P. Z. S., 1878, p. 350.—*Id.*, Rep. Voy Challenger, Zool., II, pt. VIII, p. 98, pl. xxii (1881).—RIDGWAY, Proc. U. S. Nat. Mus., I, 1878, p. 251.—FINSCH, Ibis, 1880, p. 79.—WALLACE, Island Life, p. 296 (1881).

Of this interesting Duck peculiar to the Hawaiian Archipelago the collection contains four specimens, two of which on the labels are designated as "Koloa maoli," while the other two are inscribed "Koloa piwai." I can see no difference between the specimens so marked.

As the original description and figure of this species are somewhat defective, and as the specimens before me offer some differences of plumage not hitherto recorded, a somewhat detailed account of my material may not be out of place.

A few words in regard to the true relationship of the species may be in order first, as the original description in a general way only refers it to "the section of true *Anas*, which embraces *A. obscura* of North America, *A. superciliosa* of Australia, and other species." From the synonymy as given above it might be supposed that the relationship of the present species would be with *A. superciliosa*, the habitat of which is given as embracing nearly entire Polynesia, besides Australia and New Zealand, but in point of fact it has nothing to do with the Polynesian species, as its closest allies are found on the American continent just opposite the Hawaiian Islands; or, to be more specific, *A. wyvilliana* is very closely related to *A. aberti* RIDGW. of northwestern Mexico, as already pointed out by Mr. Ridgway (Proc. U. S. Nat. Mus., I, 1878, p. 251). So close is the similarity that I am unable to distinguish No. 113450, *A. wyvilliana* (♀), from the type of *A. aberti* (♀) except by the larger size and the total absence even of an indication of supraocular or transocular stripes; the former specimen is also distinguished by white tips to the greater wing coverts, forming a white anterior border to the green speculum, but this is wanting in the other specimens as well as in the type of *A. aberti*.

On the whole, the five specimens of *Anas wyvilliana* before me, though agreeing rather closely in general coloration, present a number of extraordinary variations truly perplexing.

Nos. 113447 and 113449 I take to be correctly determined as males, for they have the central tail-feathers turned up at the end in a manner similar to that of the male *Anas boschas*.* They also differ from the other three specimens before me in having the smaller upper wing-coverts nearly uniform "hair brown" (Ridgw., Nom. Col., pl. iii, n. 12) with but faint grayish margins, while the other three have these feathers distinctly and, more or less, broadly margined with cinnamon. The two males, furthermore, have a slightly stronger greenish gloss on the occiput and upper hind neck, but here the agreement between them, as compared with the three other specimens, comes to an end.

No. 113449 has a small black bill, with an ill-defined yellowish space on each side of the upper nail, and a somewhat asymmetrical longitudinal mark of similar color on the middle of the column, and a yellowish area separating the under nail from the dark basal half of the lower mandible, while in No. 113447 the bill is pale brownish, becoming light plumbeous towards the base, with a triangular black mark on the lower basal angle of the upper mandible exactly as in *Anas fulvigula* RIDGW. In No. 113449 the top of the head, occiput, and upper neck are nearly

* The occurrence of the recurved central tail-feathers in this species is exceedingly interesting, as they are said to be entirely wanting in *Anas obscura* and the still more closely allied *A. fulvigula* from Florida. That these curious feathers are not indicated in the original description nor in the figure (P. Z. S., 1878, and 'Challenger' Rep.) is easily explained by the fact that the type was collected in August, at a time when these feathers are normal even in *A. boschas*. Our specimens are apparently winter birds.

uniform dull blackish brown, with a greenish gloss on occiput and neck, while the fore-neck has a whitish ground color striped with blackish; in No. 113447, on the other hand, these parts are colored as in the female, pale cinnamon striped with dusky underneath, and dusky striped with pale cinnamon above, though with a stronger greenish gloss than in the females. No. 113449 has the anterior white wing-band nearly twice as broad as the corresponding one in 113447. Lower wing-coverts and lower tail-coverts show great difference in the two specimens, No. 113447 agreeing in the coloration of these parts with the other three specimens in having the entire lining of the wing, including the axillaries, pure white, and in having the lower tail coverts whitish, more or less tinged with tawny and cinnamon rufous, and spotted or barred with dusky; No. 113449, however, has all the small under wing-coverts brownish gray, with broad, pale margins, and the under tail-coverts are deep cinnamon rufous, heavily blotched with black, some of the middle ones being entirely black, with a faint greenish gloss. Also among the upper tail-coverts of the same specimen there are a few uniform greenish-black feathers.

No. 113448 is said to be a male by the collector, but, if so, it is probably a younger bird than the two already spoken of, for not only are the central tail-feathers perfectly straight, but the smaller upper wing-coverts are broadly margined with cinnamon, while several of them in addition have a central pale heart-shaped mark distally circumscribed with black; the nape has a greenish gloss, but slightly fainter than in the foregoing specimens, but the lower neck and upper breast are more rufous than any of the specimens at hand; the upper white wing-band is narrow and considerably clouded with gray. Bill as in No. 113447.

The last two specimens are said to be females, and are probably correctly sexed, but they present great differences *inter se*. No. 21319 (the same one described by Mr. Ridgway, *loc. cit.*, though the number by a misprint is given as 20319) seems to be the more normal of the two, but the upper white wing-bar is nearly as obsolete as in the type of *A. aberti*, it being only represented by a narrow, ill-defined, pale drab-gray band, and round the eye there is a somewhat irregular ring of white feathers. The latter feature, however, is probably purely albimistic, there being also a few small white feathers here and there on the face, and none of the other specimens show even an indication of an eye ring. The bill appears to be like that of Nos. 113447 and 113448. The tawny margins to the smaller upper wing-coverts are narrower than in the foregoing and following specimens.* No. 113450, the last of Knudsen's birds, is particularly interesting and aberrant. While all the other specimens have the throat streaked with dusky, this one has the chin, throat, upper fore-neck and the loreal apex uniform, pale vin-

*The specimen just described was probably obtained in March, 1856, at Hilo, Island of Hawaii, consequently in the identical locality whence came the type of *A. wyvilliana*.

aceous cinnamon-rufous precisely as in *A. aberti*. The normal upper white wing bar is replaced by one of a light gray color, but in addition the greater coverts which form the upper border of the speculum,* are broadly (5^{mm}) tipped with pure white, thus interposing a very conspicuous and abnormal white bar between the speculum and its upper black border. So far as I can make out, this feature is entirely unique.† The two black tertiaries following the speculum and forming its inner black border, have some large pale cinnamon marks and broad margins at the tip, of a similar color, while in all the other specimens these feathers are uniform. The bill is brownish, with black blotches irregularly distributed over the surface.

Some of the differences noted above are probably due to sex, others to age, and others again to season, but with the scanty data as to sex and time I abstain from making any suggestions. It is plain, however, that a few of the variations can not be disposed of so easily. As to the reversed position of the black and white in the anterior border of the mirror (No. 113450) I may remark, that our museum possesses a number of pale, albinistic specimens, said to have been tame ducks having turned feral and shot on the Lower Potomac, in which a similar reversion of the two colors has taken place. Some of these specimens have only the tips of the greater coverts margined more or less broadly with white; in others the white margins also run along the edges to the base, while in others again these feathers are entirely white. But all these birds are albinistic to a great extent besides, while our Kauai specimen shows no other trace of albinism. As to the curious dark lining of the wing of No. 113449, I have at present no explanation to offer.

In all the allied species I find a light superciliary line and a dark transocular stripe more or less pronounced. No such pattern is evident in my Hawaiian specimens, the only approach to it being a scarcely perceptible postocular dark line in all, except No. 113449.

*In the original description of *Anas wyvilliana* a curious mistake has crept in, inasmuch as it is said that the speculum proper is formed by the greater coverts and its upper double border by the smaller coverts. The passage in question reads as follows: "The speculum is shining purple with a black border above and below: beyond the black border below the coverts terminate in a broad margin of pure white; above the upper black border, which is formed by the ends of the small coverts, there is a narrow ashy-white margin." Of course, the speculum is formed by the secondaries, and the upper border by the ends of the great coverts! Besides the speculum is only purple in a certain light, viz, when held between the light and the eye (Gallow's "position C"), while if the eye be placed between the light and the bird ("positions B and A"), the speculum is distinctly green, which is also the color represented in the plate.

† In Mr. Ridgway's account of the female *A. wyvilliana* (*loc. cit.*) there is a remark to the effect that the above described arrangement of the borders is the normal one in *Anas boschas*, but this is evidently only a slip of the pen.

Measurements.

U. S. Nat. Mus. No.	Collector and No.	Sex and age.	Locality.	Date.	Wing.	Tail-feathers.	Exposed culmen.	Width of bill at nostrils.	Tarsus.	Middle toe with claw.
113447	Knudsen	♂ ad.	Kauai, Hawaiian Islands.	.....	273	78	45	17.5	41	57
113449	.. do	♂ ad.	.. do .....	.....	221	77	43	17.5	39	52
113448	.. do .....	.. do .....	.. do .....	.....	234	79	48	19	40	54
113450	.. do	♀ ad.	.. do .....	.....	(*)	82	44	18	39	.....
21319	Simpson, y. 379...	♀ ad.	Sandwich Islands.	.....	224	74	45	17.5	.....	.....

* First primary molting.

† *Nycticorax nycticorax nævius* (BODD.).

Black-crowned Night Heron.

Auku kohili.

(Proc. U. S. Nat. Mus., x, 1887, p. 84.)

The additional specimen, an adult male, confirms the identification of this form. It is rather dark, though not much darker than average American skins, and much lighter than specimens from Chili (*N. obscurus*). From the table below it will be seen that the measurements are in excess of those of the Old World birds (cf. Proc. U. S. Nat. Mus., x, 1887, p. 269). The Hawaiian Night Heron, therefore, agrees with the American form in every respect.

Measurements.

U. S. Nat. Mus. No.	Collector.	Sex and age.	Locality.	Date.	Wing.	Tail-feathers.	Exposed culmen.	Tarsus.	Middle toe with claw.
113467	Knudsen.....	♂ ad.	Kauai, Hawaiian Islands	.....	310	111	79	78	84
41951	.. do .....	.. ad.	.. do .....	.....	(*)	102	75	77	83
41952	.. do	juv.	.. do .....	.....	†285	104	72	70	77

* Primaries molting.

† Primaries very much worn.

† *Fregata aquila* (LINN.).

Man-o'-War Bird.

Iwa.

In the first edition of his "Synopsis" (Proc. Boston Soc. Nat. Hist., XII) Mr. Dole enumerated the Frigate Bird under the above specific name, but in 1879 (Hawaiian Almanac) he corrected the identification as erroneous, and substituted for it the name *Tachypetes palmerstoni*, without stating his reasons for so doing. It seems, however, as if he made the change under the impression that "*Tachypetes aquila*, a similar but much larger bird of the Atlantic Ocean," is confined to the latter, and that no other species than the small one (the correct name of which

is *Fregata minor*) occurs in the "tropical belt of the Pacific and Indian oceans." This is not quite exact, for while *F. minor* is restricted to the Pacific, and particularly its southern part, *F. aquila* is found in both oceans, especially north of the equator, and the specimen from Kauai, sent by Mr. Knudsen, belongs to the large form. As Dr. Streets has found *F. minor* on the Fanning Islands (Bull. U. S. Nat. Mus. No. 7, p. 25), it is quite likely that it may also occur, at least occasionally, in the Hawaiian Archipelago.

Knudsen's specimen is a female, with the head, hind neck, lower breast, and belly blackish; upper fore-neck grayish; chest whitish, strongly suffused in the middle with ochraceous buff; smaller upper wing-coverts grayish brown with darker centers and paler margins.

The measurements of this specimen are as follows:

U. S. Nat. Mus. No.	Collector.	Sex.	Locality.	Date.	Wing.	Tail-feathers.	Exposed culmen.	Tarsus.	Middle toe with claw.
113446	Knudsen	♀	Kauai, Hawaiian Islands	.....	595	345	120	25	73